

**Amendments to the Claims**

This listing of claims will replace all the prior revisions, and listings of claims in this application.

**Listing of Claims**

1. – 6 (Cancelled)

1 7. (Currently Amended) A method of determining the time  $t_{HOB}$  to a desired Height Of Burst  
2 (HOB) of a projectile comprising the steps of:

3 a. determining, through the effect of a sensor on-board the projectile, when the  
4 projectile reaches its apogee after launch;

5 b. measuring the actual time  $t_a$  that it takes said projectile to reach the apogee after  
6 launch; and

7 c. calculating the time to the desired Height Of Burst  $t_{HOB}$  based upon the actual  
8 measured time  $t_a$  ;

9 wherein said on-board sensor is one selected from the group consisting of:  
10 accelerometric sensor, gyroscopic sensor, velocity sensor, global positioning  
11 sensor, inertial sensor, and MEMs.

1 8. (Previously Presented) The method of claim 7 wherein the calculating step c above  
2 comprises setting the  $t_{HOB}$  as a percentage X% of  $t_a$  wherein said percentage is less than  
3 100% and wherein  $t_{HOB} = t_a + X\%t_a$  .

1 9. (Previously Presented) The method of claim 8 wherein said percentage of  $t_a$  is calculated  
2 as follows:

3        if  $t_a > 12$  seconds then down leg time = 90% of  $t_a$  ;  
4        if  $12 \text{ sec} > t_a > 9$  seconds then down leg time = 70% of  $t_a$  ;  
5        if  $9 \text{ sec} > t_a > 7$  seconds then down leg time = 10% of  $t_a$  ;  
6        if  $t_a < 7$  seconds then there may be a malfunction and the projectile should be  
7        disabled..

1     10. (Previously Presented) The method of claim 7 wherein said step c is calculated as  
2     follows:

$$t_{HOB} = t_a + \sqrt{t_a^2 - 2 \times HOB/g + C}$$

4        where  $g=9.81 \text{ m/sec}^2 = 32 \text{ ft/sec}^2$   
5        and C = correction factor.

1 11. (Previously Presented) The method of claim 10 wherein said correction factor C is  
2 calculated as follows:

3        if  $t_a > 12$  seconds then  $C = 1.0$  sec;  
4        if  $12 \text{ sec} > t_a > 9$  seconds then  $C = 0.75$  sec;  
5        if  $9 \text{ sec} > t_a > 7$  seconds then  $C = 0.5$  sec;  
6        if  $t_a < 7$  seconds then there may be a malfunction and the projectile should be  
7        disabled.